

## RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.

Application Serial Number: 10/635,265B  
Source: JFWO  
Date Processed by STIC: 10-26-04

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IFWO

## RAW SEQUENCE LISTING

DATE: 10/26/2004

PATENT APPLICATION: US/10/635,265B

TIME: 16:09:31

Input Set : D:\180-158-2 seq listing rev2.ST25.txt

Output Set: N:\CRF4\10262004\J635265B.raw

3 <110> APPLICANT: Duke University  
 4 York, John D  
 6 <120> TITLE OF INVENTION: NOVEL TARGETS FOR LITHIUM THERAPY AND TOXICITY TREATMENT  
 8 <130> FILE REFERENCE: 180/158/2  
 -> 10 <140> CURRENT APPLICATION NUMBER: US/10/635,265B  
 -> 10 <141> CURRENT FILING DATE: 2003-08-06  
 10 <150> PRIOR APPLICATION NUMBER: US 60/401480  
 11 <151> PRIOR FILING DATE: 2002-08-06  
 13 <160> NUMBER OF SEQ ID NOS: 24  
 15 <170> SOFTWARE: PatentIn version 3.3  
 17 <210> SEQ ID NO: 1  
 18 <211> LENGTH: 2113  
 19 <212> TYPE: DNA  
 20 <213> ORGANISM: Homo sapiens  
 23 <220> FEATURE:  
 24 <221> NAME/KEY: mRNA  
 25 <222> LOCATION: (1)..(2113)  
 27 <400> SEQUENCE: 1

(ps. 6-8)

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32	ccagtaacac	tgtgttgatg	cggttggtag	cctccgcata	ttctattgct	caaaaggcag	180
34	gaatgatag	cagacgtggt	attgctgaag	gagacctggg	tattgtggag	aagacctgtg	240
36	caacagacct	gcagacccaa	gctgaccgat	tggcacagat	gagcatatgt	tcttcattgg	300
38	cccggaaatt	ccccaaactc	acaattatag	gggaagagga	tctgccttct	gaggaagtgg	360
40	atcaagagct	gattgaagac	agtcagtggg	aagaaatact	gaagcaacca	tgcccatcgc	420
42	agtacagtgc	tattaaagaa	gaagatctcg	tggctctggg	tgatcctctg	gatggaacca	480
44	aggaatatac	cgaaggctct	cttgacaatg	taacagttct	tattggaatt	gcttatgaag	540
46	gaaaagccat	agcaggagtt	attaaccagc	catattacaa	ctatgaggca	ggaccagatg	600
48	ctgtgttggg	gaggacaatc	tggggagttt	taggtttagg	cgcctttggg	tttcagctga	660
50	aagaagtccc	tgctgggaaa	cacattatca	caactactcg	atcccatagc	aacaagttgg	720
52	ttactgactg	tgttgctgct	atgaaccccc	atgctgtgct	gcgagtagga	ggagcaggaa	780
54	ataagattat	tcagctgatt	gaaggcaaa	cctctgctta	tgtatttgca	agtcctggtt	840
56	gtaagaagtg	ggatacttgt	gtccagaag	ttattttaca	tgctgtggga	ggcaagttaa	900
58	ccgatatcca	tgggaatggt	cttcagtacc	acaaggatgt	gaagcatatg	aactctgcag	960
60	gagtcctggc	cacactgagg	aattatgact	actatgcaag	ccgagttcca	gaatctatta	1020
62	aaaatgcact	tgttccttaa	aggaaagttt	catttgcccg	ggcgcgggtg	ctcatgcctg	1080
64	taatcccagc	actttgggag	gccgaggcag	gtggatcact	tgagctcagg	agtttgagac	1140
66	cagcctgggc	aatatcgtga	gaccccatct	ctacaaaaat	acaaattaac	tgggcatacct	1200
68	gtcatgcgcc	gttcattgag	aggctgaagc	agaagaatct	cttgagcccg		1260
70	gaaggcgagg	gttgacgtga	gctgagatcg	tgccactgca	ctccagcctg	agtgacagga	1320
72	gttaagccct	gtctcagaaa	aaaacataa	acccaaaaag	tacttaaagt	ttcatttact	1380
74	tactaggaaa	agacttggtt	ctcaaataat	acatttttaag	attaattggg	tagaattaga	1440
76	gttccacctt	tatcattggt	gacagtgatt	tatatttagt	tatatattta	gaataaaaaat	1500

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Input Set : D:\180-158-2 seq listing rev2.ST25.txt

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78 taactaaata atttaacttg attaataacca ttactcaacc tgacaattga gttggagact 1560
80 tataaactca ttatgggttat catgtgtttt cctgttgaat gtgaagaagt gagaaaacat 1620
82 ttgccaatga cagttaggcg tgcacactga ccattcactg ataaaccaga ttctgcctga 1680
84 atctgaaggg attgcttgta gcataggggt tagtggcgtg atcttgggtc actgcggccc 1740
86 gcttccgggg ttcatgcttc tctgcctag ctccgggtag ctgggactgc agcacggccc 1800
88 acgctggtaa ttttttgtat gatggtgaga agttttcacc gtgttgccag gatggcttat 1860
90 cctgacatcg tgatctgtat gcctcggatc ccaaagtgca tgggatgaca gctgtgagcc 1920
92 accgcacttg gcttaaacca gatttcttta gggcacattt ttttggaatc tcaactctgtt 1980
94 tttcacagta attttaaaaa cgttttatcc aattagaata tatatgatgt tattatatat 2040
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98 aaaaaaaaaa aaa 2113

101 <210> SEQ ID NO: 2
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103 <212> TYPE: PRT
104 <213> ORGANISM: Homo sapiens
107 <220> FEATURE:
108 <221> NAME/KEY: PEPTIDE
109 <222> LOCATION: (1)..(308)
111 <400> SEQUENCE: 2
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114 1 5 10 15
117 Ser Ile Ala Gln Lys Ala Gly Met Ile Val Arg Arg Val Ile Ala Glu
118 20 25 30
121 Gly Asp Leu Gly Ile Val Glu Lys Thr Cys Ala Thr Asp Leu Gln Thr
122 35 40 45
125 Lys Ala Asp Arg Leu Ala Gln Met Ser Ile Cys Ser Ser Leu Ala Arg
126 50 55 60
129 Lys Phe Pro Lys Leu Thr Ile Ile Gly Glu Glu Asp Leu Pro Ser Glu
130 65 70 75 80
133 Glu Val Asp Gln Glu Leu Ile Glu Asp Ser Gln Trp Glu Glu Ile Leu
134 85 90 95
137 Lys Gln Pro Cys Pro Ser Gln Tyr Ser Ala Ile Lys Glu Glu Asp Leu
138 100 105 110
141 Val Val Trp Val Asp Pro Leu Asp Gly Thr Lys Glu Tyr Thr Glu Gly
142 115 120 125
145 Leu Leu Asp Asn Val Thr Val Leu Ile Gly Ile Ala Tyr Glu Gly Lys
146 130 135 140
149 Ala Ile Ala Gly Val Ile Asn Gln Pro Tyr Tyr Asn Tyr Glu Ala Gly
150 145 150 155 160
153 Pro Asp Ala Val Leu Gly Arg Thr Ile Trp Gly Val Leu Gly Leu Gly
154 165 170 175
157 Ala Phe Gly Phe Gln Leu Lys Glu Val Pro Ala Gly Lys His Ile Ile
158 180 185 190
161 Thr Thr Thr Arg Ser His Ser Asn Lys Leu Val Thr Asp Cys Val Ala
162 195 200 205
165 Ala Met Asn Pro Asp Ala Val Leu Arg Val Gly Gly Ala Gly Asn Lys
166 210 215 220
169 Ile Ile Gln Leu Ile Glu Gly Lys Ala Ser Ala Tyr Val Phe Ala Ser
170 225 230 235 240

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173 Pro Gly Cys Lys Lys Trp Asp Thr Cys Ala Pro Glu Val Ile Leu His
174                245                250                255
177 Ala Val Gly Gly Lys Leu Thr Asp Ile His Gly Asn Val Leu Gln Tyr
178                260                265                270
181 His Lys Asp Val Lys His Met Asn Ser Ala Gly Val Leu Ala Thr Leu
182                275                280                285
185 Arg Asn Tyr Asp Tyr Tyr Ala Ser Arg Val Pro Glu Ser Ile Lys Asn
186                290                295                300
189 Ala Leu Val Pro
190 305

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193 &lt;210&gt; SEQ ID NO: 3

194 &lt;211&gt; LENGTH: 364

195 &lt;212&gt; TYPE: PRT

196 &lt;213&gt; ORGANISM: Artificial

198 &lt;220&gt; FEATURE:

199 &lt;223&gt; OTHER INFORMATION: Li-sensitive sequence uniting motif.

202 &lt;220&gt; FEATURE:

203 &lt;221&gt; NAME/KEY: MISC\_FEATURE

204 &lt;222&gt; LOCATION: (2)..(41)

205 <223> OTHER INFORMATION: X is any amino acid, and wherein between 0 and 39 of the  
residues

206 can be missing.

208 &lt;220&gt; FEATURE:

209 &lt;221&gt; NAME/KEY: MISC\_FEATURE

210 &lt;222&gt; LOCATION: (44)..(143)

211 <223> OTHER INFORMATION: X is any amino acid, and wherein between 0 and 99 of the  
residues

212 can be missing.

214 &lt;220&gt; FEATURE:

215 &lt;221&gt; NAME/KEY: MISC\_FEATURE

216 &lt;222&gt; LOCATION: (146)..(146)

217 <223> OTHER INFORMATION: X is isoleucine or an amino acid that can be conservatively  
218 substituted in place thereof.

220 &lt;220&gt; FEATURE:

221 &lt;221&gt; NAME/KEY: MISC\_FEATURE

222 &lt;222&gt; LOCATION: (148)..(148)

223 <223> OTHER INFORMATION: X is glycine or an amino acid that can be conservatively  
224 substituted in place thereof.

226 &lt;220&gt; FEATURE:

227 &lt;221&gt; NAME/KEY: MISC\_FEATURE

228 &lt;222&gt; LOCATION: (149)..(149)

229 <223> OTHER INFORMATION: X is threonine or an amino acid that can be conservatively  
230 substituted in place thereof.

232 &lt;220&gt; FEATURE:

233 &lt;221&gt; NAME/KEY: MISC\_FEATURE

234 &lt;222&gt; LOCATION: (150)..(349)

235 <223> OTHER INFORMATION: X is any amino acid, and wherein between 0 and 199 of the  
236 residues can be missing.

238 &lt;220&gt; FEATURE:

239 &lt;221&gt; NAME/KEY: MISC\_FEATURE

240 &lt;222&gt; LOCATION: (350)..(350)

## RAW SEQUENCE LISTING

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Input Set : D:\180-158-2 seq listing rev2.ST25.txt

Output Set: N:\CRF4\10262004\J635265B.raw

241 <223> OTHER INFORMATION: X is tryptophan or an amino acid that can be conservatively  
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244 <220> FEATURE:

245 <221> NAME/KEY: MISC FEATURE

246 <222> LOCATION: (351)..(351)

247 <223> OTHER INFORMATION: X is aspartic acid or an amino acid that can be  
conservatively  
248 substituted in place thereof.

250 <220> FEATURE:

251 <221> NAME/KEY: MISC FEATURE

252 <222> LOCATION: (352)..(362)

253 <223> OTHER INFORMATION: X is any amino acid.

255 <400> SEQUENCE: 3

-> 257 Asp Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
258 1 5 10 15

-> 261 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
262 20 25 30

-> 265 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Glu Glu Xaa Xaa Xaa Xaa Xaa  
266 35 40 45

-> 269 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
270 50 55 60

-> 273 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
274 65 70 75 80

-> 277 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
278 85 90 95

-> 281 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
282 100 105 110

-> 285 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
286 115 120 125

-> 289 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp  
290 130 135 140

-> 293 Pro Xaa Asp Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
294 145 150 155 160

-> 297 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
298 165 170 175

-> 301 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
302 180 185 190

-> 305 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
306 195 200 205

-> 309 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
310 210 215 220

-> 313 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
314 225 230 235 240

-> 317 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
318 245 250 255

-> 321 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
322 260 265 270

-> 325 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
326 275 280 285

-> 329 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa

## RAW SEQUENCE LISTING

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Input Set : D:\180-158-2 seq listing rev2.ST25.txt

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330      290      295      300
-> 333 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
334 305      310      315      320
-> 337 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
338      325      330      335
-> 341 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
342      340      345      350
-> 345 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Gly
346      355      360
349 <210> SEQ ID NO: 4
350 <211> LENGTH: 290
351 <212> TYPE: PRT
352 <213> ORGANISM: Artificial
354 <220> FEATURE:
355 <223> OTHER INFORMATION: Li-sensitive sequence uniting motif for Impasel.
358 <220> FEATURE:
359 <221> NAME/KEY: MISC_FEATURE
360 <222> LOCATION: (1)..(46)
361 <223> OTHER INFORMATION: X is any amino acid.
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364 <221> NAME/KEY: MISC_FEATURE
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376 <223> OTHER INFORMATION: X is any amino acid.
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381 <223> OTHER INFORMATION: X is any amino acid.
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384 <221> NAME/KEY: MISC_FEATURE
385 <222> LOCATION: (234)..(290)
386 <223> OTHER INFORMATION: X is any amino acid.
388 <400> SEQUENCE: 4
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391 1      5      10      15
-> 394 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
395      20      25      30
-> 398 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp Xaa
399      35      40      45
-> 402 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
403      50      55      60
-> 406 Xaa Xaa Xaa Xaa Xaa Glu Glu Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa

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RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/635,265BDATE: 10/26/2004  
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## Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> or <223> fields of each sequence which presents at least one n or Xaa.

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RAW SEQUENCE LISTING ERROR SUMMARY  
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Output Set: N:\CRF4\10262004\J635265B.raw

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eq#:5; Xaa Pos. 320,321,322,323,324,325,326,327,330,331,332,333,334,335  
eq#:5; Xaa Pos. 336,337,338,339,340,341,342,343,344,345,346,347,348,349  
eq#:5; Xaa Pos. 350,351,352,353,354,355,356,357,358,359,360,361,362,363  
eq#:5; Xaa Pos. 364,365,366,367,368,369,370,371,372,373,374,375,376,377  
eq#:5; Xaa Pos. 378,379,380,381,382,383,384,385,386,387,388,389,390,391  
eq#:5; Xaa Pos. 392,393,394,395,396,397,398,399  
eq#:6; Xaa Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22  
eq#:6; Xaa Pos. 23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41  
eq#:6; Xaa Pos. 42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60  
eq#:6; Xaa Pos. 61,62,63,64,65,66,67,68,69,70,71,72,73,74,76,77,78,79,80  
eq#:6; Xaa Pos. 81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,100,101  
eq#:6; Xaa Pos. 102,103,104,105,106,107,108,109,110,111,112,113,114,115  
eq#:6; Xaa Pos. 116,117,118,125,126,127,128,129,130,131,132,133,134,135  
eq#:6; Xaa Pos. 136,137,138,139,140,141,142,143,144,145,146,147,148,149  
eq#:6; Xaa Pos. 150,151,152,153,154,155,156,157,158,159,160,161,162,163  
eq#:6; Xaa Pos. 164,165,166,167,168,169,170,171,172,173,174,175,176,177  
eq#:6; Xaa Pos. 178,179,180,181,182,183,184,185,186,187,188,189,190,191  
eq#:6; Xaa Pos. 192,193,194,195,196,197,198,199,200,201,202,203,204,205  
eq#:6; Xaa Pos. 206,207,208,209,210,211,212,213,214,215,216,217,218,219  
eq#:6; Xaa Pos. 220,221,222,223,224,225,226,227,228,229,230,231,232,233  
eq#:6; Xaa Pos. 234,235,236,237,238,239,240,241,242,243,244,245,246,247  
eq#:6; Xaa Pos. 248,249,250,251,252,253,254,255,256,257,258,259,260,261  
eq#:6; Xaa Pos. 262,263,264,265,266,267,268,269,270,271,272,273,274,275  
eq#:6; Xaa Pos. 276,277,278,279,282,283,284,285,286,287,288,289,290,291  
eq#:6; Xaa Pos. 292,295,296,297,298,299,300,301,302,303,304,305,306,307  
eq#:6; Xaa Pos. 308,309,310,311,312,313,314,315,316,317,318,319,320,321  
eq#:6; Xaa Pos. 322,323,324,325,326,327,328,329,330,331,332,333,334,335  
eq#:6; Xaa Pos. 336,337,338

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,  
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.



RAW SEQUENCE LISTING ERROR SUMMARY      DATE: 10/26/2004  
PATENT APPLICATION:    US/10/635,265B      TIME: 16:09:32

Input Set : D:\180-158-2 seq listing rev2.ST25.txt  
Output Set: N:\CRF4\10262004\J635265B.raw

q#:3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24

## VERIFICATION SUMMARY

DATE: 10/26/2004

PATENT APPLICATION: US/10/635,265B

TIME: 16:09:32

Input Set : D:\180-158-2 seq listing rev2.ST25.txt

Output Set: N:\CRF4\10262004\J635265B.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application No

L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:257 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0  
L:261 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:16  
L:265 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:32  
L:269 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:48  
L:273 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:64  
L:277 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:80  
L:281 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:96  
L:285 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:112  
L:289 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:128  
L:293 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:144  
L:297 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:160  
L:301 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:176  
L:305 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:192  
L:309 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:208  
L:313 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:224  
L:317 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:240  
L:321 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:256  
L:325 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:272  
L:329 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:288  
L:333 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:304  
L:337 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:320  
L:341 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:336  
L:345 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:352  
L:390 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0  
L:394 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:16  
L:398 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:32  
L:402 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:48  
L:406 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:64  
L:410 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:80  
L:414 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:96  
L:418 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:112  
L:422 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:128  
L:426 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:144  
L:430 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:160  
L:434 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:176  
L:438 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:192  
L:442 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:208  
L:446 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:224  
L:450 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:240  
L:454 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:256  
L:458 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:272  
L:462 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:288  
L:507 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0  
L:511 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:16  
L:515 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:32  
L:519 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:48

## VERIFICATION SUMMARY

DATE: 10/26/2004

PATENT APPLICATION: US/10/635,265B

TIME: 16:09:32

Input Set : D:\180-158-2 seq listing rev2.ST25.txt

Output Set: N:\CRF4\10262004\J635265B.raw

L:523 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:64  
L:527 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:80  
L:531 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:96  
L:535 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:112  
L:539 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:128  
L:543 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:144  
L:547 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:160  
L:551 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:176  
L:555 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:192  
L:559 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:208  
L:563 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:224  
L:567 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:240  
L:571 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:256  
L:575 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:272  
L:579 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:288  
L:583 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:304  
L:587 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:320  
L:591 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:336  
L:595 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:352  
L:599 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:368  
L:603 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:384  
L:648 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0  
L:652 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:16  
L:656 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:32  
L:660 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:48  
L:664 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:64  
L:668 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:80  
L:672 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:96  
L:676 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:112  
L:680 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:128  
L:684 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:144  
L:688 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:160  
L:692 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:176  
L:696 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:192  
L:700 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:208  
L:704 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:224  
L:708 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:240  
L:712 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:256  
L:716 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:272  
L:720 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:288  
L:724 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:304  
L:728 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:320  
L:732 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:336